

METHODS OF STRETCHING FILMS AND SUCH FILMS
ABSTRACT OF THE DISCLOSURE

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5 A method of biaxially stretching a polymeric film along an overbias stretch
profile. The method comprises the steps of:) imparting a sufficiently high
temperature to the film to allow a significant amount of biaxial stretch; and b) biaxial
tenter stretching the film to a final first direction stretch parameter and a final second
direction stretch parameter, wherein at least 75% of the final first direction stretch
parameter is attained before no more than 50% of the final second direction stretch
10 parameter is attained, and wherein the final first direction stretch parameter is no
greater than the final second direction stretch parameter.

An alternative method comprises a method of biaxially stretching a polymeric
film along an overbias stretch profile. The method comprising the steps of:
a) imparting a sufficiently high temperature to the film to allow a significant amount
15 of biaxial stretch; and b) biaxial tenter stretching the film according to a stretch
profile to a final first direction stretch parameter and a final second direction stretch
parameter, wherein the final first direction stretch parameter is no greater than the
final second direction stretch parameter. In such a method: i) a straight line between
the point defining zero stretch parameter and the point defining the final first and
20 second direction stretch parameters represents a proportional stretch profile and
defines a proportional stretch area; and ii) the curve representing the stretch profile
between the point defining zero stretch parameter and the point defining the final first
and second direction stretch parameters defines an area at least 1.4 times the
proportional stretch area.